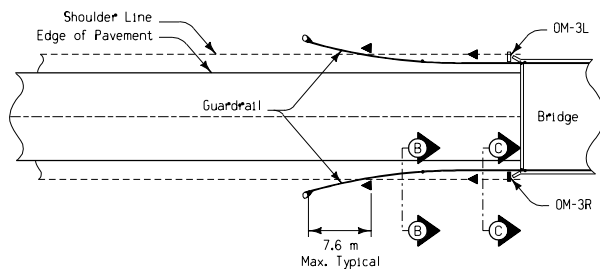
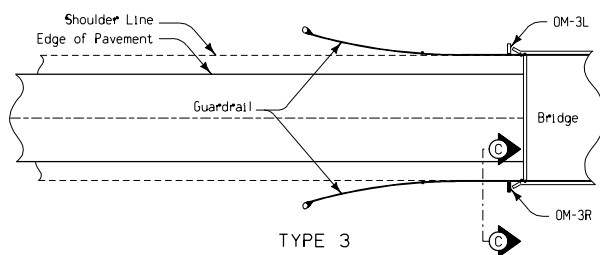


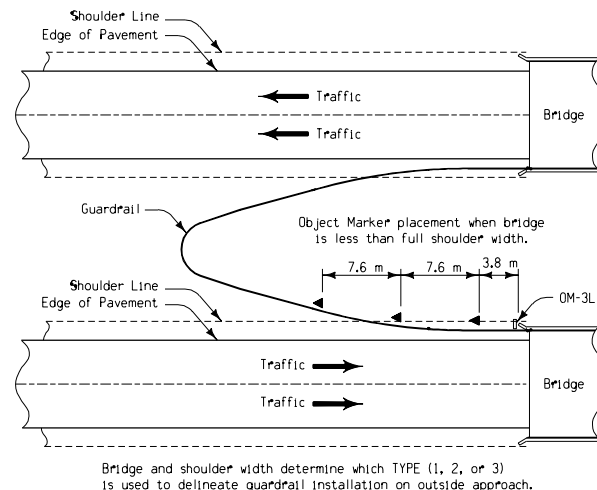
TYPE 1
BRIDGE - 10 METERS WIDE OR LESS BUT NOT FULL SHOULDER WIDTH



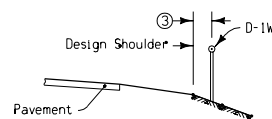
TYPE 2
BRIDGE - WIDER THAN 10 METERS BUT LESS THAN FULL SHOULDER WIDTH



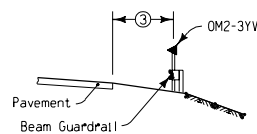
TYPE 3
BRIDGE - FULL SHOULDER WIDTH



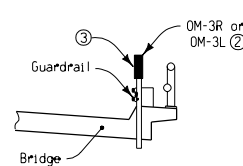
TYPE 4
BRIDGE - BULLNOSE GUARDRAIL INSTALLATION



SECTION A-A



SECTION B-B



SECTION C-C

LEGEND ③	
□	Type 3 Object Marker, Left (OM-3L)
■	Type 3 Object Marker, Right (OM-3R)
◀	Type 2 Object Marker (OM2-3YV)
○	Single White Delineator, (D-1W)

- ① Not required on projects where delineators are proposed or installed throughout the length of the project.
- ② All Delineator and Object Marker placement shall be behind face of guardrail. The edge of object marker (OM-3L or OM-3R) shall be aligned with the face of guardrail.
- ③ Refer to Standard Road Plans RE-7 and RE-47.
- ④ At ramp terminals only, install Single White Delineators as follows: Place first delineator at location where near ramp terminal radius meets the edge of the through pavement. Place additional delineator(s) spaced equally (spacing not to exceed 60 meters) between first delineator and guardrail.

GENERAL NOTES:

Details shown hereon cover the placement of Markers and Delineators at bridges in conjunction with the installation of guardrail. If a guardrail installation is warranted, delineation is required as determined by the following types of situations.

TYPE 1: For bridges that are 10 meters wide or less, but not full shoulder width. Beginning 7.6 meters from the approach end of guardrail, install Type 2 Object Markers (OM2-3YV) at 7.6 meter intervals behind the guardrail. Install a Type 3 Object Marker (OM-3R and OM-3L) at the bridge ends. On paved roadways only, install 7 Single White Delineators (D-1W) at 60 meter spacing beginning 60 meters in front of the approach end of the guardrail. For ramp terminals, see note 4.

TYPE 2: For bridges over 10 meters wide, but less than full shoulder width. Beginning 7.6 meters from the approach end of guardrail, install Type 2 Object Markers (OM2-3YV) at 7.6 meter intervals behind the guardrail. Install a Type 3 Object Marker (OM-3R and OM-3L) at the bridge ends.

TYPE 3: For full shoulder width bridges. Install a Type 3 Object Marker (OM-3R and OM-3L) at the bridge ends.

TYPE 4: Bridges with Bullnose Guardrail Installation. Install a Type 3 Object Marker (OM-3L) at the bridge end.
For full shoulder width bridges:
No Delineation required.
For less than full shoulder width bridges:
Install 3 Type 2 Object Markers (OM2-3YV)
Install first object marker 3.8 meters from bridge end post and install remaining two at 7.6 meter intervals

When object markers or delineator are required with guardrail installations, the object markers or delineator will be included in the price bid for installation of guardrail. When object markers or delineators are required when no guardrail work is done the object markers and delineators will be bid.

Price bid for contract items shall be considered full compensation for furnishing, fabricating, and erecting the delineators and object markers including posts, necessary hardware, and labor to complete the work.

Contract bid items are:
Single White Delineators
Type 2 Object Markers
Type 3 Object Markers

Incidental Item:
Offset Brackets

All dimensions given in millimeters unless noted.

METRIC VERSION	Iowa Department of Transportation Highway Division	
	STANDARD ROAD PLAN RE-48A	
	REVISION: Added paragraph to General Notes, defines what is included in price bid for installation of guardrail.	REVISION NO. 9
	APPROVED BY: <i>Mitchell J. Silliman</i> DESIGN METHOD: ENGINEER	REVISION DATE 04-03-01
	DETAILS OF MARKER AND DELINEATOR PLACEMENT (AT BRIDGES)	